



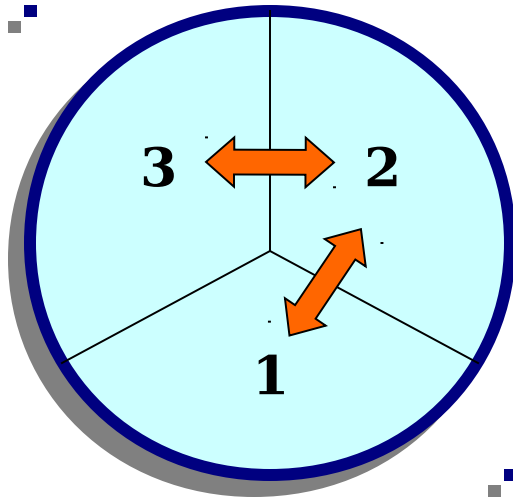
**Naval Operational
Logistics Support Center
(NOLSC Ammo)**

***The Application of
"Shelf-Life" and
Shelf-Life Codes to
Class V (Ammunition)***

***Ready. Resourceful.
Responsive!***

CONTEXT

BASIC DoD “SHELF-LIFE” PROGRAM ELEMENTS



1. DoD 4100.39-M
(FLIS) cataloging requirements, including identifying items with “Shelf-Life” Codes
2. DoD 4140.27-M
(SLM) Management requirements for “Shelf-Life” items, including condition classification
3. DoD 4000.25-2-M
(Appendix A) - Supply Condition Codes



“Class I subsistence, Class III bulk petroleum, **Class V ammunition, and Class VIII-B blood, are excluded from this manual and shall continue to be managed in accordance with existing regulations.”**
DoD 4140.27-M Chapter 1 (General), 1-2 (Purpose), paragraph B

Briefing Purpose



To describe how age-sensitive USN/USMC/USCG ammunition is logistically managed, and to suggest that improvements can be realized by including Class V within the DoD Shelf-Life Program framework.

DEFINITION

Shelf-Life - “**The total period of time** beginning with the date of manufacture, date of cure (for elastomeric and rubber products only), date of assembly, or date of pack (subsistence only), and terminated by the date by which an item must be used (expiration date) or subjected to inspection, test, restoration, or disposal action; or after inspection/laboratory test/restorative action **that an item may remain in** the combined wholesale (including manufacture’s) and retail **storage** systems **and still be suitable for issue or use by the end user.** **Shelf-life is not to be confused with service life** (see **DoD** definition).”
4140.27-M

PRESENTATION OUTLINE

- ◆ **Managing USN/USMC/USCG ammunition age sensitivity**
- ◆ **Why is ammunition managed differently?**
- ◆ **Current Issues**
- ◆ **Can ammunition age-sensitivity be managed within the DoD Shelf-Life Program framework?**

MANAGING USN/USMC/USCG AMMUNITION AGE SENSITIVITY



Point 1 – Age sensitivity for ammunition items (including when and how it applies) is a specified serviceability criterion and is included as a specific quality characteristic in test and inspection procedures.

MANAGING USN/USMC/USCG AMMUNITION AGE SENSITIVITY



Point 2 – Ammunition items are physically identified with serial numbers and/or lot numbers and, when assigned a shelf life or service life, with an expiration date.

MANAGING USN/USMC/USCG AMMUNITION AGE SENSITIVITY



Point 3 – Shelf life and service life time periods for ammunition are specified...

- **For new items, based on historical data for like items**
- **Based on Quality Evaluation (QE) and periodic surveillance testing and analysis**
- **Based on performance and maintenance data analysis**

MANAGING USN/USMC/USCG AMMUNITION AGE SENSITIVITY



Point 4 - The determination of shelf life or service life applicability (and the criteria for application) is made by the individual ammunition life-cycle managers (Program Managers).

- 0T - MARCORSYSCOM
- 2D - PEO(W)
- 2E - PEO(A)
- 2E - PEO(W)
- 2T - PEO(S)
- 2T - PEO(SUB)
- 4T - PEO(SUB)
- 6T - PEO(MUW)
- 6T - PEO(EXW)
- 8E - PEO(W)
- 8S - PEO(SUB)
- 8T - PEO(TSC)
- 8T - PEO(EXW)
- 8E - PEO(T)

WHY IS AMMUNITION MANAGED DIFFERENTLY? DIFFERENTLY?

Point 1 - Ammunition is
are subject to stock and
inventory controls for the
entire life, wherever they
exist, including while in the
custody of users.



WHY IS AMMUNITION MANAGED DIFFERENTLY? DIFFERENTLY?

**Point 2 - Ammunition
serial
numbers, lot numbers
and
and age life expiration
dates**



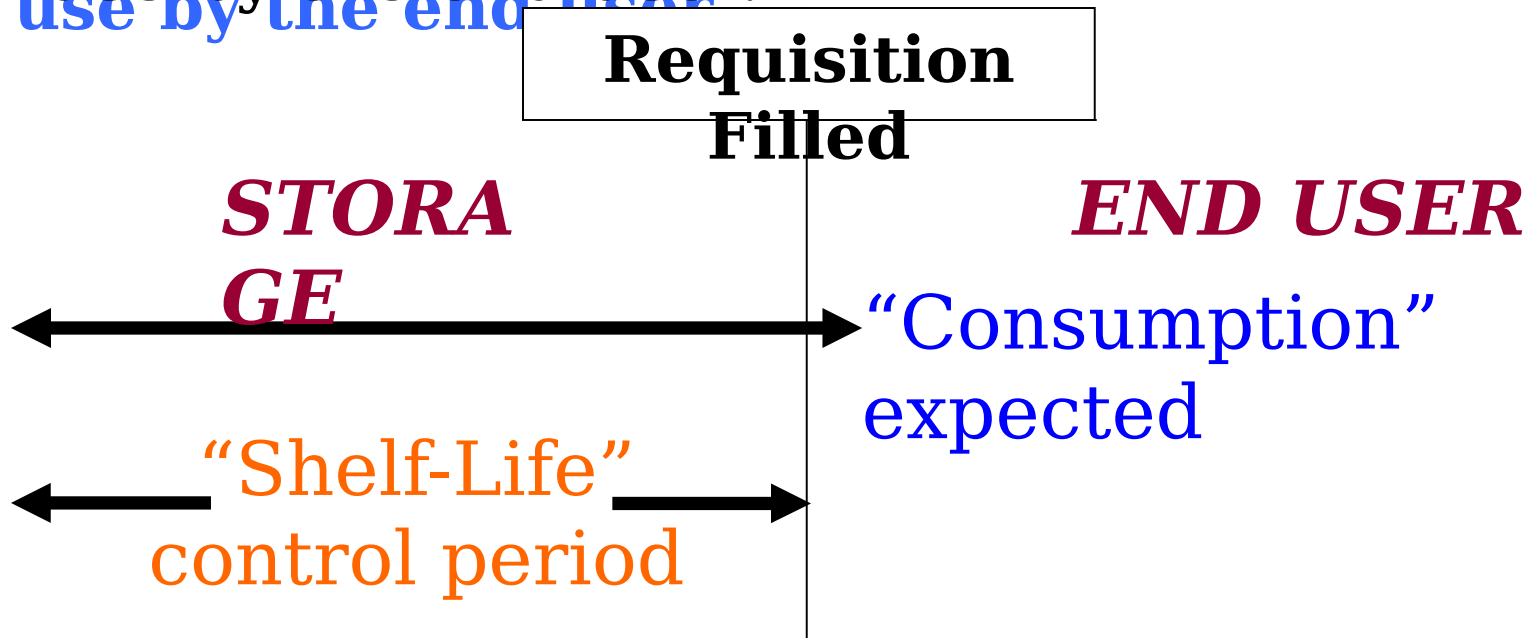
are included in stock

- and inventory records/reports**
- RDT&E Activities/Laboratories
 - Manufacturing Activities (wholesale/retail)
 - Acceptance Activities
 - Maintenance Activities
 - Stock Points
 - Ships/Air Stations

for all custodians.

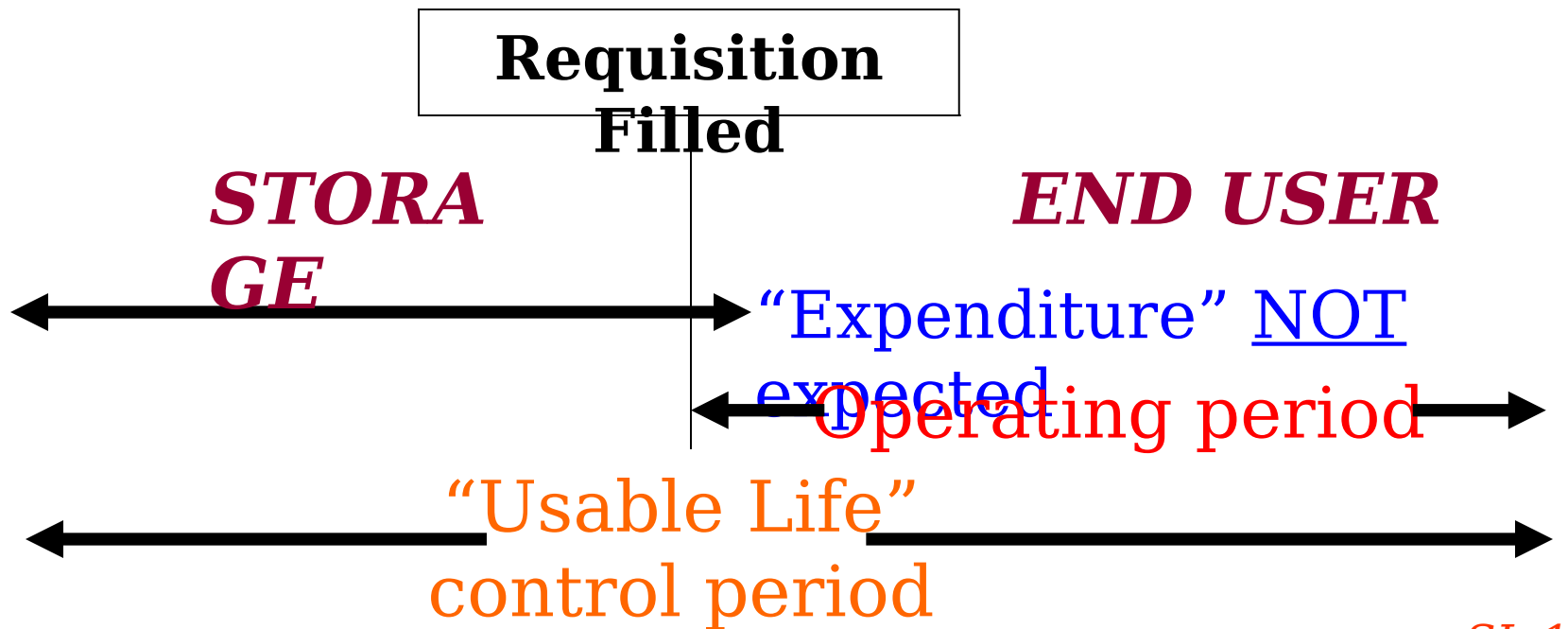
WHY IS AMMUNITION MANAGED DIFFERENTLY?

“Shelf-Life” (other than ammunition) - The total period of time that an item may remain in storage and still be suitable for issue or use by the end user.



WHY IS AMMUNITION MANAGED DIFFERENTLY?

Shelf Life/Service Life (ammunition) - The total period of time during which an item may be issued to and used by the end user.



CURRENT ISSUES

ISSUE 1 - NON-STANDARD DEFINITIONS

The published definitions for Shelf Life and Service life for ammunition are product-specific and a variety of terminology is applied.

- Shelf Life - Various product-specific language
- Service Life - Various product-specific language
- Serviceable-In-Service-Time (SIST) - Air-Launched Missiles
- Programmed Maintenance (interval) - Underwater Mines
- Periodic Maintenance (interval) - Torpedoes
- Installed Life - Various cartridges and propellant actuated items



CURRENT ISSUES

ISSUE 1 - NON-STANDARD DEFINITIONS (Example)



2E (COG) Bombs, Aircraft Rockets, JATO/RATO, Underwater Sound Signals (SUS) and Components

Shelf Life - The period of time beginning from the date of manufacture that an item can remain in its hermetically sealed container and still be serviceable.

Service Life - The period of time during which an item can be used

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CURRENT ISSUES

ISSUE 1 - NON-STANDARD DEFINITIONS (Example)

4T (COG) Torpedoes

Prescribed Maintenance Interval - The period of time during which a torpedo may be classified as Serviceable. Maintenance Due Dates (MDD) identify either the expiration of the prescribed maintenance interval or the service life expiration of installed components, whichever comes first.



CURRENT ISSUES

ISSUE 1 - NON-STANDARD DEFINITIONS (Example)



8E (COG) Air-Launched Guided Missiles

Serviceable-In-Service-Time (SIST) - The period of time an air launched missile may remain in operational use or storage before its internal electronic or mechanical components require a test or maintenance action at a naval weapons support facility or naval airborne weapons maintenance unit to validate suitability for operational use.

Maintenance Due Dates (MDD) identify either the expiration of the SIST or the service life expiration of installed components, whichever comes first.

CURRENT ISSUES

ISSUE 1 - NON-STANDARD DEFINITIONS

While the definitions are varied and product-specific, they are consistent in two significant aspects...

- Their ultimate focus is on the period of time during which the ammunition may be USED, rather than the time period during which the ammunition may be ISSUED for use.
- At the end of the time period (on the “expiration date”) the ammunition must be classified to a condition OTHER THAN serviceable.



DEFINITION (Ammunition)

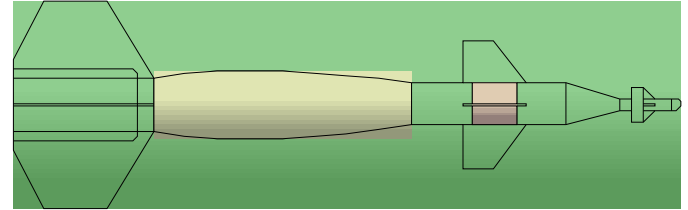
Service Life - A general term used to quantify the average or mean life of an item while in use. *NOTE: This is a generic*

definition; definitions focused on specific items vary in specificity and detail. Service life is not synonymous with shelf-life. Service life is intended to control the total life of an item through the time of use.

Ammunition items are generally assigned a service life, rather than a shelf-life. Serviceable-In-Service-Time (SIST) and programmed maintenance intervals are expressions equivalent to “service life.” Shelf-life is intended to control the period of time an item may be issued for subsequent use. Only a few ammunition items are assigned a shelf-life and those that are are not controlled in the same way as standard Supply System shelf-life items. Specifically, “Type I,” “Type II,” “Shelf-Life Codes” and “Shelf-Life Action Codes” do not apply to ammunition.

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CURRENT ISSUES



ISSUE 2 - SUPPLY CONDITION CODE APPLICABILITY

The Supply Condition Codes (a component of Federal Condition Codes) established by DoD 4000.25-2-M (MILSTRAP) correlate precisely with “Shelf-Life” and SLCs but do not relate to Service Life. Specifically,

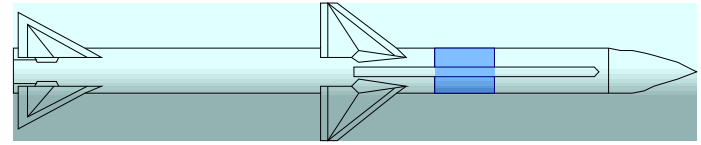
CODE A - “...Includes materiel with more than 6-months shelf-life remaining.” (Issuable without qualification)

CODE B - “...Includes materiel with 3 through 6-months shelf-life remaining.” (Issuable with qualification.
For shelf life items

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CURRENT ISSUES



ISSUE 2 - SUPPLY CONDITION CODE APPLICABILITY

Via NAVSUP P-485 (Naval Supply Procedures), NOLSC-AMMO has issued Condition Code amplification specifically tailored to ammunition. Specifically,

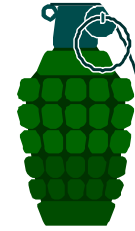
CODE A/B/C - (Amplification)

Note: For ammunition with an assigned service life the amount of life remaining (time to expiration of service life, Serviceable-In-Service -Time, Maintenance Due Date, overhaul cycle, certification cycle, or calibration interval) will not be considered in assigning Code A, B or C.

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CURRENT ISSUES



ISSUE 2 - SUPPLY CONDITION CODE APPLICABILITY

**The assignment of Supply Condition Codes to
ammunition
based on DoD 4140.27-M provisions (limited
remaining
“Shelf-Life,” SLCs and Type I/Type II
classifications)
introduces errors. For example,**

- **Code B or Code C assigned instead of Code A.**
- **The issue of items identified as Code C to end users (e.g., ships) when the items will expire during scheduled deployment.**
- **Code J assigned instead of Code E or Code F (to**

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CAN AMMUNITION AGE-SENSITIVITY BE MANAGED WITHIN THE DoD SHELF-LIFE PROGRAM FRAMEWORK?

Y

A suggested approach is

- 1. Recognize (and identify by reference) Class V (ammunition) shelf-life and service life management procedures within DoD 4140.27-M.**
- 2. Provide appropriate “Life Codes” for Class V items.**



CAN AMMUNITION AGE-SENSITIVITY BE MANAGED WITHIN THE DoD SHELF-LIFE PROGRAM FRAMEWORK?

Y

A suggested approach is

- 3. Effect no impact to current 4140.27-M provisions other than Class V items.**
- 4. Effect no impact to current procedures for determining or specifying ammunition age sensitivity, or for ammunition inventory status accounting and reporting.**



CAN AMMUNITION AGE-SENSITIVITY BE MANAGED WITHIN THE DoD SHELF-LIFE PROGRAM FRAMEWORK?

CURRENT 4100.39-M/4140.27-M SHELF-LIFE CODES

| Shelf-Life Period | Type I | Type II | Required Number of Months/Quarters Remaining Upon Receipt by the first Government activity | |
|---|-------------|-------------|--|----------------------------------|
| | | | Months | Quarters |
| Non-Deteriorative No Shelf-Life Applies | 0 (zero) | 0 (zero) | N/A | N/A |
| 01 Month | A | N/A | 25 days | N/A |
| ↑ No Changes ↓ | | | | |
| Shelf-Life Period Greater than 60 Months for Type II Extendible Items | N/A | X | 85 percent of number of months | 85 percent of number of quarters |

CAN AMMUNITION AGE-SENSITIVITY BE MANAGED WITHIN THE DoD SHELF-LIFE PROGRAM FRAMEWORK?

GGESTED 4100.39-M/4140.27-M CLASS V (Ammunition) LIFE CODES

| Designated Life Period | Life Code | Required Life Period Remaining Upon Initial Receipt to Inventory |
|---|------------------|--|
| Indefinite, or no shelf-life and no service life | 0 (zero) | N/A |
| A specific life period (shelf life and/or service life) is assigned. | A)* | As specified in applicable contract or other procurement data package |

**** Specific life period as determined and promulgated by the applicable ammunition life-cycle manager.***

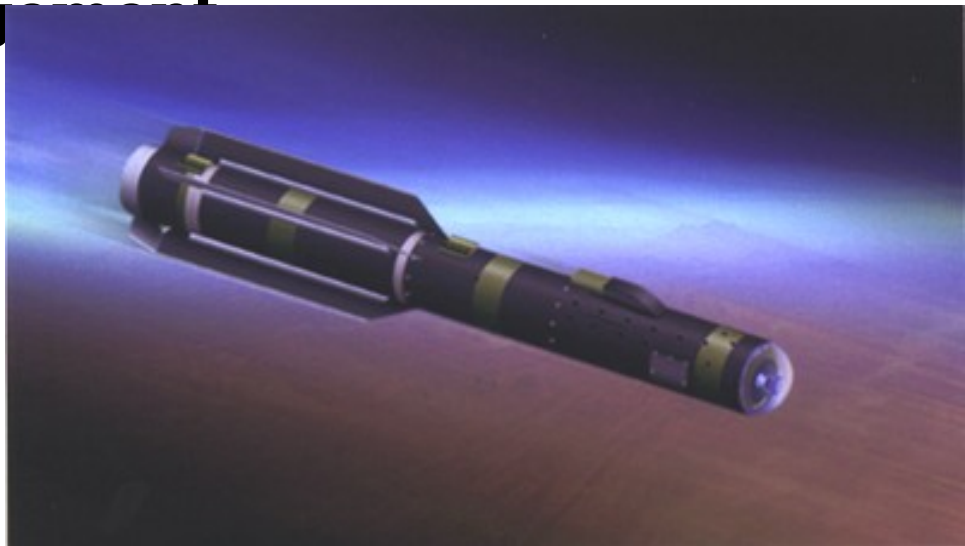
SUMMARY

The current DoD 4140.27-M provisions, including “Shelf-Life Codes,” “Type I” and “Type II” Shelf-Life designations, and all correlation with MILSTRAP Supply Condition Codes, are not appropriate for application to Supply Class V (ammunition).



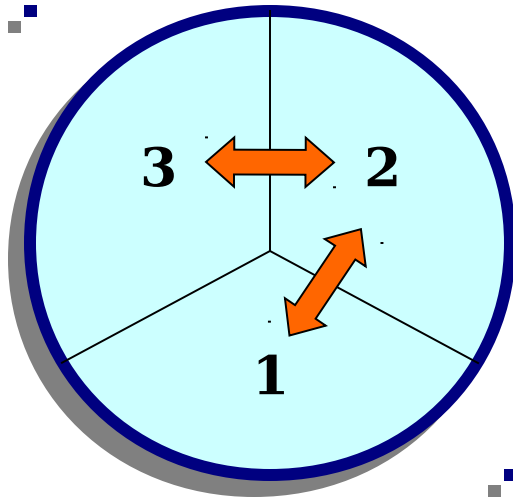
CONCLUSION

Recognition of Class V shelf life/service life management procedures and provision for Class V “Life Codes” in DoD 4100.39-M and 4140.27-M can result in improved effectiveness and efficiency in ammunition



RECAP

DoD “SHELF-LIFE” PROGRAM ELEMENTS (Tailored to Class V)



1. DoD 4100.39-M

(SELIIS) cataloging requirements, to include

2. DoD 4140.27-M

identifying Class V items with “Life” Codes (SLMG) management requirements, to address

3. DoD 4000.25-2-M

Class V “Life” management per service (or joint service) policy (APPSTRAP) to formally recognize

“Ammunition Condition Codes”

OUR PLAN



- ◆ Brief the issue to the NAVSUP Ammunition Sentencing Publications CCB (14-16 Sep.) and, within 270 days.....
- ◆ Draft proposed change to DoD 4140.27-M,
- ◆ Coordinate proposed change with USN/USMC/USCG ammunition life-cycle managers,
- ◆ Coordinate proposed change with USA/USAF via JOCG/JMC/PEO-AMMO, and
- ◆ Submit proposed change(s) to Shelf-Life Program Administrator(s).

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